UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,007	10/31/2005	Michiya Kobayashi	009270-0315086	2826

909 7590 11/14/2007

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER	
GREEN, TRACIE Y	

ART UNIT	PAPER NUMBER
2879	

MAIL DATE	DELIVERY MODE
11/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/526,007	KOBAYASHI, MICHIYA	
	Examiner	Art Unit	
	Tracie Y. Green	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☒ Claim(s) *6-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 March 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/25/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. The abstract of the disclosure is objected to because it lacks parenthesis around the reference numbers. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claims 6-8 are objected to under 37 CFR 1.75(c) as being in improper form because of multiple dependents. For example, the device as in claim 1, 2, 3, or 4 (claim 4 is a multiple dependent claim), wherein.... See MPEP § 608.01(n). Accordingly, the claims haven not been further treated on the merits.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi et al. in view of Teruo et al. (Japanese Patent Application, 2003-345271)

Regarding claim 1, Nishi et al. teaches an optically transparent substrate (Figure 1, #101 and Paragraph 26, lines 1-4); first pixel electrodes formed on said substrate (Figure 2, #43), said first pixel electrodes including light shielding portions (Paragraph 73, lines 1-5); second pixel electrodes (Figure 2, #46) formed on said substrate, said second pixel electrodes including optically transparent portions (Paragraph 82, lines 1-6).

Nishi et al. is silent regarding common electrodes provided with optically transparent portions corresponding to said first pixel electrodes and light shielding portions corresponding to said second pixel electrodes ;first optical layers disposed between said first pixel electrodes and said common electrodes to change an optical property in response to electric energy applied between said first pixel electrodes and said common electrodes; and second optical layers disposed between said second pixel electrodes and said common electrodes to change an optical property in response to electric energy applied between said second pixel electrodes and said common electrodes .

In the same field of endeavor Teruo et al teaches common electrodes (Paragraph 10,lines 4-6) provided with optically transparent portions corresponding to said first pixel electrodes and light shielding portions corresponding to said second pixel electrodes (Paragraph 20, lines 1-5); first optical layers disposed between said first pixel electrodes and said common electrodes to change an optical property in response to electric energy applied between said first pixel electrodes and said common electrodes (Paragraph 19, lines 5-9); and second optical layers disposed between said second pixel electrodes and said common electrodes to change an optical property in response to electric energy applied between said second pixel electrodes and said common electrodes (Drawing 1, line #3) in order to provide a device that is both thin and inexpensive (abstract)

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to modify the display device of Nishi et al. with common electrodes provided with optically transparent portions corresponding to said first pixel electrodes and light shielding portions corresponding to said second pixel electrodes ;first optical layers disposed between said first pixel electrodes and said common electrodes to change an optical property in response to electric energy applied between said first pixel electrodes and said common electrodes; and second optical layers disposed between said second pixel electrodes and said common electrodes to change an optical property in response to electric energy applied between said second pixel electrodes and said common electrodes in order to provide a device that is both thin and inexpensive as taught by Teruo et al.

Regarding claim 2, The display device according to claim 1, wherein said first and second pixel electrodes are optically reflective on sides facing said common electrodes (Paragraph 24, lines 1-8).

Regarding claim 3, Nishi et al. is silent regarding the display device above (see claim 1). Nishi is silent wherein said first pixel electrodes are disposed in a first direction, said second pixel electrodes are disposed in a second direction to cross said first pixel electrodes, and said first and second pixel electrodes are alternatively provided in said first and/or second directions.

In the same field of endeavor of display devices, Teruro et al teaches wherein said first pixel electrodes (Drawing 1, #2a) are disposed in a first direction, said second pixel electrodes (Drawing 1, #2b) are disposed in a second direction to cross said first pixel electrodes, and said first and second pixel electrodes are alternatively provided in said first and/or second directions (Paragraph 15, lines 1-6) in order to provide a device which is thinner and easier to manufacture (abstract)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the display device as disclosed by Nishi et al. wherein said first pixel electrodes (Drawing #2a) are disposed in a first direction, said second pixel electrodes (Drawing 2b) are disposed in a second direction to cross said first pixel electrodes, and said first and second pixel electrodes are alternatively provided in said first and/or second directions (Paragraph 15, lines 1-6) in order to provide a device which is thinner and easier to manufacture as taught by Teruro et al.

3. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishi et al in view of Teruro et al. and in further view of Fujita et al. (PG-PUB, US 2002/0047567)

Regarding Claim 4, Nishi et al. teaches the display device set forth above (see rejection claim (1) above. Nishi teaches first switching elements (Figure 3b, #201) provided in vicinities of points where said scanning lines cross said first video signal lines (Paragraph52, lines 1-3) and second switching elements (Figure 3b, 201) (examiner note, applicants attention is drawn to the second pixel region in figure 3b which holds a switching TFT as well)

Nishi is silent regarding scanning lines disposed in said first direction on said substrate; first and second video signal lines disposed in said second direction on said substrate.

In the same field of endeavor display devices, Fujita et al. teaches scanning lines (Figure 4, line 9) disposed in said first direction on said substrate (Paragraph 79, lines 1-3); first and second video signal lines (Figure 4, #20) disposed in said second direction on said substrate (Paragraph 79, lines 1-3) in order to provide a display device which is free from inter-electrode short and deterioration in the display (Paragraph 19, lines 5-9)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the display device as disclosed by Nishi et al. with scanning lines disposed in said first direction on said substrate; first and second video signal lines disposed in said second direction on said substrate in order to provide a

display device which is free from inter-electrode short and deterioration in the display as taught by Fujita et al.

Regarding claim 5, Nishi et al. teaches wherein at least a part of said first and second switching elements is disposed in a region defined by said substrate and said first pixel electrodes (Paragraph 48, lines 1-5 and Paragraph 47, lines 6-10).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure can be found in form 892 of this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracie Y. Green whose telephone number is 571/270-3104. The examiner can normally be reached on Monday-Thursday- 7:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571/272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Tracie Green
November 5, 2007

NIMESHKUMAR D. PATEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800